Stat and Data Analysis Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

HW after 7.2 Quiz

In a survey of adult Americans, people were asked to indicate their **age** and to categorize their **political preference** (liberal, moderate, conservative). The results are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Liberal | Moderate | Conservative | *Total* |
| under 30 | 83 | 140 | 73 | *296* |
| 30 - 50 | 119 | 280 | 161 | *560* |
| over 50 | 88 | 284 | 214 | *586* |
| *total* | *290* | *704* | *448* | *1442* |

1. What is the probability that a respondent is moderate ***and*** under 30?
2. What is the probability that a respondent is conservative ***and*** 30 – 50?
3. What is the probability that a respondent is moderate ***or*** under 30?
4. What is the probability that a respondent is conservative ***or*** 30 – 50?
5. What is the probability that a respondent is a Liberal?
6. Of the Liberals, what is the probability of being under 30?
7. What is the probability that a respondent is over 50?
8. Of those over 50, what is the probability of being a Liberal?
9. Of those that are moderates, what is the probability of being 30-50?
10. Given that someone is a moderate, what is the chance they are over 50?

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